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SOME BIRDS OF CENTRAL OREGON

By ALEX WALKER

WITH MAP AND ONE PHOTO

THE BASIS of this paper consists of notes and specimens collected during three trips to this region. In 1913, accompanied by my father and a friend, Max Short, I made a five weeks camping trip, travelling with team and wagon. We left The Dalles on May 15, and drove up the Columbia River to the mouth of the Deschutes, then south through Sherman County to Madras, from Madras to Silver Lake by way of Redmond and Bend, through the Deschutes National Forest reserve of Crook* and north-eastern Klamath counties. The return was made by way of the Paulina Mountains and Prineville to Madras, from which place a side trip was made to Sisters before driving to The Dalles through Warm Springs Indian Reservation, Mutton Mountains and Tygh Valley.

During 1914 I visited the mouth of the Deschutes River, from July 24 to August 8 inclusive, for the purpose of collecting birds and mammals for the Oregon Fish and Game Commission. The State Biological Survey has been conducted under the direction of William L. Finley, State Biologist, who has been working under the supervision of the Bureau of Biological Survey, United States Department of Agriculture. For a few days Stanley G. Jewett, then with the State Fish and Game Commission, M. E. Peck of Willamette University, and Alfred Shelton of the State University, were with me at the mouth of the Deschutes.

On the third trip I was in the field continually from April 1 to June 1 for the Fish and Game Commission in company with Mr. Jewett who was then collecting for the U. S. Biological Survey. Part of the time we were accompanied by Mr. F. E. Garlough. On this trip we collected at the mouth of Willow Creek in Gilliam County; at Millers near the mouth of the Deschutes in Sherman and Wasco counties; at Maupin on the Deschutes in Wasco County; and on the Warm Springs Indian Reservation far enough into the mountains to se-

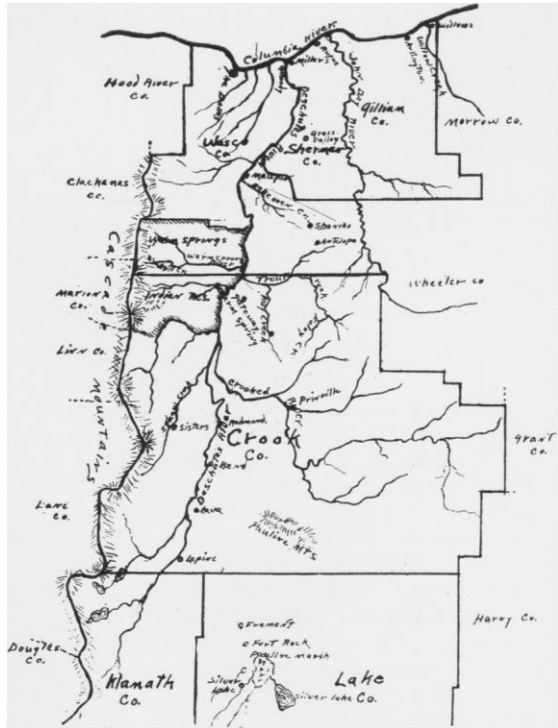


Fig. 48. SKETCH-MAP OF CENTRAL OREGON.

*Since part of these notes were made, Crook County has been divided into two counties, the northern portion being called Jefferson County.

cure typical species of the eastern Cascade slopes. Good collections were made at Gateway and Haycreek, and some work was done on Foley Creek in a spur of the Blue Mountains east of Haycreek.

Central Oregon lies between the Cascade and Blue mountains. The country is a high plateau and the rivers flow through deep canyons. The Deschutes is the principal river flowing north. The John Day River and Willow Creek flow into the Columbia in Gilliam County. Warm Spring River and the Metolius are the largest tributaries flowing into the Deschutes from the west, while

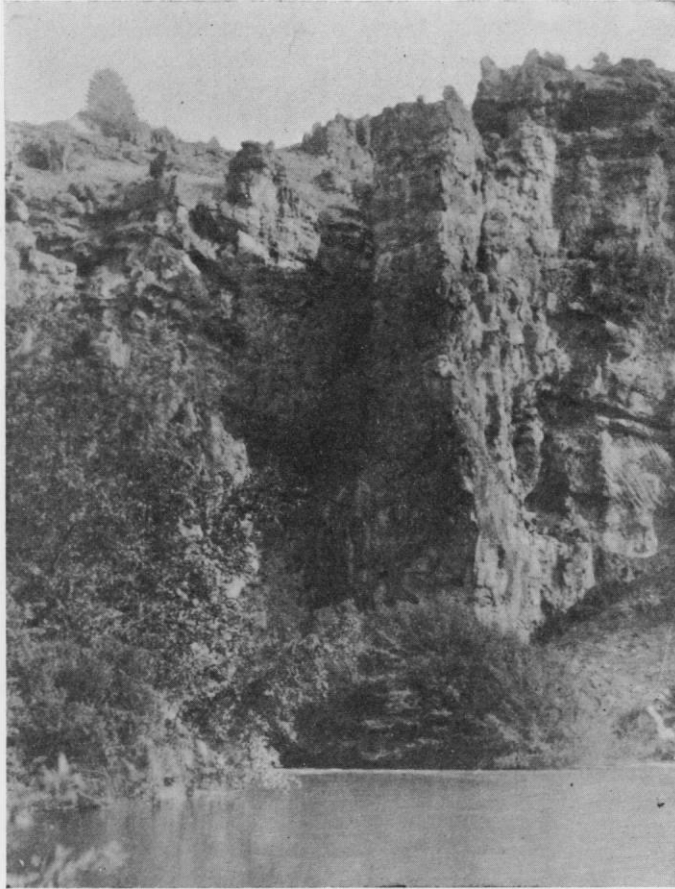


Fig. 49. CLIFFS ON WARM SPRING RIVER, NORTH-CENTRAL OREGON; SUITABLE NESTING SITES HERE AFFORDED FOR SAY PHOEBE, RAVEN, AND WESTERN RED-TAILED HAWK.

Crooked River is the main tributary from the east. The former rises high in the Cascade Mountains, while the latter comes from the high Blue Mountains.

A considerable part of this high dry area is in the Upper Sonoran life zone. In northern Sherman and Gilliam counties there are still large areas of bunch-grass; but as this land is rapidly being broken up and the grazing land turned into wheat ranches, some of the Upper Sonoran species will diminish in numbers to be replaced by those Transition species which increase with the cultivation of the country. The most conspicuous and abundant plant of the Upper

Sonoran zone is the sage-brush (*Artemisia tridentata*). This shrub is found abundantly to the very edge of the timber and is only replaced by other vegetation along streams and in some of the valleys. Other typical plants of this zone are the greasewood (*Sarcobates vermiculatus*), hackberry (*Celtis occidentalis*), currant (*Ribes aureum*), and phlox (*Phlox douglasi*).

The lower Cascade and Blue Mountain slopes lie within the Transition zone, as do the Deschutes and other Forest Reserves of southern Crook and northern Klamath counties. The Paulina Mountains and Mutton Mountains are small, isolated ranges more or less timbered with pine and juniper. The principal forest trees are the western yellow pine (*Pinus ponderosa*), Douglas fir (*Pseudotsuga taxifolia*), and grand fir (*Abies grandis*). In the more open country the western juniper (*Juniperus occidentalis*) grows extensively. Willow (*Salix amygdaloides*), alder (*Alnus rhombifolia*), and cottonwood (*Populus trichocarpa*) are found along streams. Oak (*Quercus garryana*) is common on the hills near The Dalles. Other plants of this zone are cedar (*Libocedrus decurrens*), chokecherry (*Prunus demissa*), blue elder (*Sambucus glauca*), western birch (*Betula frontalis*), wild rose (*Rosa picicarpa*), snowberry (*Symphoricarpos orophyllus*), currant (*Ribes cereum*), and buck-brush (*Ceanothus velutinus*). The following lists are given to show some of the typical species of land birds of the two zones.

UPPER SONORAN SPECIES

Sage Hen	Brewer Blackbird
Desert Sparrow Hawk	Western Lark Sparrow
Burrowing Owl	Sage Sparrow
Western Kingbird	Brewer Sparrow
Say Phoebe	White-rumped Shrike
Gray Flycatcher	Sage Thrasher
Dusky Horned Lark	Rock Wren

TRANSITION SPECIES

Rocky Mountain Hairy Woodpecker	Slate-colored Sparrow
White-headed Woodpecker	Lutescent Warbler
Western Wood Pewee	Audubon Warbler
Clarke Nutcracker	Western Yellowthroat
San Diego Red-wing	Dipper
Bullock Oriole	Pigmy Nuthatch
Crossbill	Mountain Chickadee
Shufeldt Junco	Western Bluebird
Cassin Vireo	

Aechmophorus occidentalis. Western Grebe. Breeds rather sparingly at the Paulina Marshes where it was found among the tall tules in the deepest parts of the marsh.

Podilymbus podiceps. Pied-billed Grebe. Noted in the more shallow parts of the Paulina Marsh, where nests found early in June contained eggs in an advanced state of incubation.

Hydrochelidon nigra surinamensis. Black Tern. Tolerably common at Paulina Marsh, where it doubtless breeds, but no nests were found.

Larus occidentalis. Western Gull. Noted on the Columbia River near the mouth of the Deschutes, in April, 1915.

Larus californicus. California Gull. A specimen was taken at the mouth of the Deschutes on August 4, 1914.

Pelicanus erythrorhynchos. White Pelican. On June 1, 1913, a large flock was seen in flight a few miles east of Silver Lake.

Mergus americanus. Merganser. Noted on the Deschutes River.

Anas platyrhynchos. Mallard. On May 20, 1913, a pair of Mallards was flushed from an alfalfa field bordering an irrigation ditch near Antelope, and ten days later I found the species fairly common at the Paulina Marsh near Silver Lake. Here several

nests were examined in a large patch of dead tules, the eggs at this time being in a well advanced stage of incubation. This species also nests in the tall grass and thick beds of leaves at the foot of numerous clumps of willows growing in the shallow or higher parts of the marsh. In one of these willows a Mallard had lined a deserted crow's nest with down, and was incubating six eggs.

Querquedula cyanoptera. Cinnamon Teal. This is the most common of the ducks breeding at the Paulina Marsh. They nest almost exclusively in the large areas of bent-over tules. The nests are usually composed of dry tules lined with dark down, and placed on a platform of dead broken-over reeds, well concealed from the sides and from above. These birds evince strong parasitic tendencies, as many eggs were found in nests of the next-named species.

Marila americana. Redhead. Another common duck at the marshes. On June 1 they were paired off, and two or three nests were noted in the heavy tules; but their nesting season was evidently not at its height.

Branta canadensis canadensis. Canada Goose. A common bird in the spring along the Columbia River and on Millers Island at the mouth of the Deschutes where they are accused of doing considerable damage to young alfalfa. In the fall they are abundant on the high bench land above the Columbia River, where they frequent the grain fields and afford splendid shooting. Until recently these geese nested on Millers Island. Two partly floating nests were found June 21, 1913, in the Paulina Marsh. These were large structures composed of dead rushes, with a scant lining of broken bits of tules and down. Goslings, half grown, were also noted at this time.

Botaurus lentiginosus. Bittern. Noted only at Paulina Marsh.

Ardea herodias herodias. Great Blue Heron. In August this species is common on the gravel bars at the mouth of the Deschutes River. It was noted at Maupin on the Deschutes in April, 1915.

Nycticorax nycticorax naevius. Black-crowned Night Heron. A large colony nested in the clumps of willows in Paulina Marsh. The nesting season was well advanced by June 1, but a few nests still contained fresh eggs, while some held young birds a third grown.

Grus mexicana. Sandhill Crane. I did not meet this species at the marsh, but it breeds five miles to the south, in the vicinity of Silver Lake.

Porzana carolina. Sora. One bird was observed May 29, 1913, in a marshy place on the Deschutes River south of La Pine in southern Crook County. A specimen was taken by Mr. Jewett at the mouth of the Deschutes on April 17, 1915.

Fulica americana. Coot. A common bird in the marshes of northern Lake County.

Steganopus tricolor. Wilson Phalarope. This beautiful bird is common at the Paulina Marsh and around the irrigation ditches and hay fields in the vicinity of Silver Lake. A nest collected June 30, 1913, at the town of Silver Lake, was situated in the tall grass near the bank of an irrigation ditch. It was composed of dry grasses, and contained four heavily incubated eggs.

Recurvirostra americana. Avocet. A single example was observed June 3 at the north end of Paulina Marsh.

Gallinago delicata. Wilson Snipe. Noted in April, 1915, at the mouth of the Deschutes, and at Maupin in Wasco County.

Pelidna alpina sakhalina. Red-backed Sandpiper. One was taken at Silver Lake on June 4, 1913.

Totanus melanoleucus. Greater Yellowlegs. Noted April 17, 1915, at Millers on the south bank of the Columbia River.

Catoptrophorus semipalmatus inornatus. Western Willet. A single bird was seen at the Paulina Marsh.

Actitis macularius. Spotted Sandpiper. Noted on the bank of the Columbia at the mouth of the Deschutes, and in the vicinity of irrigation ditches at Redmond, Crook County.

Oxyechus vociferus. Killdeer. The most common and widely distributed shore-bird of this region. Noted at nearly all the streams and small marshes between the Columbia River and Silver Lake except the timbered areas.

Oreortyx picta picta. Mountain Quail. An adult bird with a band of young was noted in the hills three miles west of The Dalles on June 20, 1913. A specimen was taken by Jewett on the Warm Springs Indian Reservation, in May, 1915.

Lophortyx californica californica. California Quail. Common at the ranches, in the canyons and on the slopes near the mouth of the Deschutes River, and in Bake-oven Creek canyon near Maupin.

Dendragapus obscurus fuliginosus. Sooty Grouse. This bird was noted at Maupin by Jewett, and two specimens were taken by O. J. Murie at the mouth of Davis Creek, in Crook County, on April 8, 1913.

Pedioecetes phasianellus columbianus. Columbian Sharp-tailed Grouse. This species, locally called Prairie Chicken, occurs locally in Wasco, Sherman and Gilliam counties where it frequents grazing land and grain fields on the high plateaus south of the Columbia River. This was formerly a bunch-grass country, but is now cultivated to a large extent. Two nests with eggs were collected on April 19, 1915, in Sherman County near the Miller Ranch at the mouth of the Deschutes River. The nests were similar, each being a slight depression lined with grass, grain stems and feathers, and situated in small clumps of growing grain in a large field. While incubating, the females have a most gentle and unexcitable disposition.

Centrocercus urophasianus. Sage Hen. Tolerably common in suitable localities. I observed it in numbers north of Fort Rock, and it is abundant in parts of the Silver Lake country. In the latter place their worst enemies are the great bands of sheep that graze over their breeding ground and destroy many nests. On May 10, 1915, a parent bird with her band of young was seen at Haycreek by the foreman of the Haycreek Ranch. At that place Sage Hens are said to congregatē in large bands during the winter.

Phasianus torquatus. Ring-necked Pheasant. A number of these birds were liberated on the Moody Ranch in northeastern Sherman County in August, 1914. They have also been introduced near Willows, Gilliam County, and at Haycreek, Crook County.

Zenaidura macroura marginella. Western Mourning Dove. Common over a large part of the open country, particularly in the vicinity of ranches and cultivated areas.

Cathartes aura septentrionalis. Turkey Vulture. While not abundant, buzzards were often seen flying above the rimrocks in many places throughout this region. At the mouth of the Deschutes this species was common and roosted in the trees on a small island in the river.

Accipiter velox. Sharp-shinned Hawk. A bird of this species that had been killed by a ranchman was seen near Madras on May 21, 1913.

Accipiter cooperi. Cooper Hawk. One was noted by Jewett in the mountains twelve miles east of Haycreek on May 21, 1915.

Buteo borealis calurus. Western Red-tail. The Red-tail is typical of the Deschutes canyon, sage brush and juniper deserts, and the Blue and Cascade mountains. Noted in nearly every locality visited. The nests are usually placed on shelves or in crevices in rocky bluffs or desert rimrocks.

Buteo swainsoni. Swainson Hawk. Noted in the vicinity of Haycreek, where with other hawks they were attracted by the hundreds of Oregon Ground Squirrels (*Citellus oregonus*) which were poisoned in the hay fields of the Haycreek Ranch.

Archibuteo lagopus sancti-johannis. Rough-legged Hawk. Seen by Jewett at Willows on April 2, 1915.

Haliaeetus leucocephalus. Bald Eagle. This bird was noted on the high plains west of Willows early in April, 1915. Jewett records the Bald Eagle as of regular occurrence along the Columbia River in eastern Oregon.

Falco mexicanus. Prairie Falcon. Jewett noted this bird at Millers, April 16, 1915.

Falco sparverius phalaena. Desert Sparrow Hawk. Well distributed throughout the greater part of central Oregon except in the deserts of southern Crook and northern Lake counties, where it occurs sparingly. Noted in the Blue Mountains east of Haycreek and in the foothills of the Cascades. Deserted woodpecker holes are the usual nesting sites of this species, but it also nests on cliffs and canyon sides. This falcon is abundant between The Dalles and the Deschutes River, a region that is almost treeless. Here it nests in holes in the banks of creeks and coulees.

Pandion haliaetus carolinensis. Osprey. Noted only on Crooked River during June, 1913.

Asio wilsonianus. Long-eared Owl. Early in April, 1915, these birds were found breeding in numbers in the willow groves at the mouth of Willow Creek in Gilliam County. The nests examined were apparently old crows' nests relined with feathers. Six weeks later in the vicinity of Haycreek this species was noted, and a nest contain-

ing heavily incubated eggs was found. At Silver Lake a Long-eared Owl was found dead on her nest in a clump of willows in Paulina Marsh.

Asio flammeus. Short-eared Owl. A pair of these birds was noted May 18, 1913, in the sage and bunch-grass country south of Grass Valley, in Sherman County.

Otus asio macfarlanei. MacFarlane Screech Owl. I examined two screech owls that had been shot in December, 1914, and mounted by Mrs. A. Osborne on the Moody Ranch at the mouth of the Deschutes. During April, 1915, Jewett collected two of these owls on Bake-oven Creek near Maupin.

Bubo virginianus pallescens. Western Horned Owl. A pair of breeding birds was collected by Jewett at Haycreek and he also noted the species at Maupin and Prineville. In June, 1913, a bird was seen in the yellow pine timber between Sisters and the Deschutes River. Jewett collected specimens of this owl at Sisters during August, 1914.

Speotyto cunicularia hypogaea. Burrowing Owl. Noted at Willows, Grass Valley, Antelope, and Gateway in the breeding season, but at no place could it be called abundant.

Ceryle alcyon. Belted Kingfisher. Common on the Deschutes River and Willow Creek and probably occurs along other suitable streams. On the Miller Ranch at the mouth of the Deschutes, a pair nest yearly in a clay bank near the ranch buildings several hundred feet from water.

Dryobates villosus monticola. Rocky Mountain Hairy Woodpecker. On May 21, 1915, Jewett collected this species at Foley Creek in the mountains east of Haycreek. Specimens of *Dryobates* were taken on Mill Creek, but were not typical *monticola*.

Xenopicus albolarvatus. White-headed Woodpecker. This species was met with in the yellow pine timber south of Bend, at Foley Creek, and at Sisters. At the latter place it was quite common; several were noted in the town.

Sphyrapicus thyroides. Williamson Sapsucker. A specimen taken by Mr. Jewett at Foley Creek Ranch on May 21 contained a fully developed egg.

Asyndesmus lewisi. Lewis Woodpecker. Fairly common in Wasco and central Crook counties preferring the more open country with scattered pine, juniper or oak. Noted at Foley Creek, and in the canyon of Bake-oven Creek there was every indication that they nested in the numerous dead cottonwood snags. I found this species very common west of The Dalles, nesting in cavities in oaks in the vicinity of farm buildings.

Colaptes cafer collaris. Red-shafted Flicker. Tolerably common wherever there are suitable nesting sites. In some localities they nest in dirt holes in the sides of coulees.

Phalaenoptilus nuttalli nattalli. Poor-will. No specimens were taken by me on any of my trips in this region; but on Gordons Ridge in Sherman County, and at The Dalles I heard their notes well into the night. Taken by Jewett at The Dalles in 1912.

Chaetura vauxi. Vaux Swift. In June, 1913, a few of these birds were seen flying about the cliffs west of The Dalles.

Selasphorus rufus. Rufous Hummingbird. A few were noted at Sisters and on the Warm Springs Reservation. A specimen was taken at Warm Springs Agency.

Stellula calliope. Calliope Hummingbird. This species was taken at Foley Creek on May 21, 1915.

Tyrannus tyrannus. Kingbird. Two adults and four well grown young of the Eastern Kingbird were seen July 24, 1914, at the mouth of the Deschutes on the Wasco County side of the river. One adult and two of the young were collected. The following day one of the remaining birds was seen feeding on the edge of an alfalfa field on the Sherman County side.

Tyrannus verticalis. Western Kingbird. An abundant and ever present species in the more open country of north-central Oregon, particularly in the neighborhood of ranches and cultivated areas. Noted only sparingly in the unsettled country between Silver Lake and Prineville.

Myiarchus cinerascens cinerascens. Ash-throated Flycatcher. A specimen was collected on May 27, 1913, on a sage and juniper flat near Redmond. In June, 1913, I again noted the species at Sisters and at The Dalles. S. G. Jewett has recorded it from Prineville (CONDOR, xviii, p. 21).

Sayornis sayus. Say Phoebe. A common bird in the open country except in the Silver Lake and Fort Rock regions.

Myiochanes richardsoni richardsoni. Western Wood Pewee. An example was

taken in an alder and cottonwood grove at the Warm Springs Agency on April 29, 1915. Reported by Jewett to be a common species along wooded streams throughout the region.

Empidonax traillii traillii. Traill Flycatcher. At the mouth of the Deschutes this bird was noted as fairly common in the willows along the streams. Also seen along Bake-oven Creek near Maupin.

Empidonax griseus. Gray Flycatcher. Specimens of the small gray-colored flycatcher found sparingly in the heavy sage brush country of south-central Oregon have been identified as *E. griseus*. As elsewhere recorded (CONDOR, XVI, p. 94), a specimen with nest and eggs was taken on the north side of the Paulina Mountains. On June 4, 1913, I found a nearly completed nest on a large sage-brush flat between Sisters and the Deschutes River. The nest was built in a clump of buck-brush and resembled the other nest except that the lining contained more wool. Both birds were in evidence.

Otocoris alpestris merrilli. Dusky Horned Lark. Common in the sage and bunch-grass country lying back from the Columbia River, but becomes less common to the south. In northern Lake and southern Crook counties it was rarely seen in the breeding season. Noted one between Fort Rock and Prineville. Jewett found a nest containing fresh eggs on Millers Island early in May, 1915.

Pica pica hudsonia. Magpie. A very common bird of the valleys, canyons and along brush-skirted streams of the open country.

Cyanocitta stelleri carbonacea. Coast Jay. On May 28, 1913, I collected a jay in the yellow pine belt ten miles south of Bend which was identified by Mr. H. C. Oberholser as of this species. Specimens taken along Mill Creek in the lower Cascades are no doubt referable to this form.

Cyanocitta stelleri annectens. Black-headed Jay. Several were noted in the pine timber on the mountains east of Haycreek, where a specimen was taken by Jewett in May, 1915.

Corvus corax sinuatus. Raven. A common species where there are canyons, bluffs and rimrocks, usually nesting on shelves or in crevasses in the cliffs; out on the desert I found it nesting in junipers.

Corvus brachyrhynchos hesperis. Western Crow. Common along streams bordered by cottonwoods and willows. At Silver Lake they nest commonly in the clumps of willows growing in the higher parts of Paulina Marsh. At that place they are very destructive and destroy hundreds of ducks' and night herons' eggs in the swamps.

Nucifraga columbiana. Clarke Nutcracker. Noted at Foley Creek and in the pine timber at Sisters.

Cyanocephalus cyanocephalus. Pinyon Jay. In the latter part of May large flocks were seen in the juniper groves near Redmond and Bend. From their actions I took part of them to be young of the year. Also noted near Warm Springs Agency.

Molothrus ater. Cowbird. Two young birds were taken on the Miller Ranch at the mouth of the Deschutes on July 28, 1914; no adults were seen.

Xanthocephalus xanthocephalus. Yellow-headed Blackbird. In May, 1913, a few birds were seen on Antelope and Trout creeks in southern Wasco and northern Jefferson counties where they possibly nest. They breed abundantly in Paulina Marsh, where in early June, I examined a large number of their nests, built in the rushes growing in the shallow marsh.

Agelaius phoeniceus neutralis. San Diego Red-wing. Red-wings were noted rather sparingly along the Columbia and other streams in the open country. They were found on the Deschutes River south of La Pine in southern Crook County, and in Paulina Marsh they were very abundant, nesting in large colonies in the grassy parts of the marsh.

Sturnella neglecta. Western Meadowlark. A typical bird of the bunch-grass and open sage-brush country of north-central Oregon.

Icterus bullocki. Bullock Oriole. Along the wooded or shrubby fringed streams this species is plentiful. On Warm Springs River it is especially abundant, nesting in the small trees along the stream. In one place I found a dozen nests in an hour.

Euphagus cyanocephalus. Brewer Blackbird. Locally common near settlements and cultivated areas. This is one of the species that will undoubtedly become more plentiful with the settlement of the country.

Hesperiphona vespertina montana. Western Evening Grosbeak. Late in April, 1915, these grosbeaks were noted several times in alder trees along Bake-oven Creek

many miles from pine timber. A few were collected. A few days later they were seen at Warm Springs.

***Carpodacus cassini*.** Cassin Purple Finch. Noted at Sisters and on Mill Creek in the Cascades northwest of Warm Springs. In the pine timber at Foley Creek they were very common.

***Carpodacus mexicanus frontalis*.** House Finch. Common near settlements. Outnumbers the English Sparrow in many Columbia River towns.

***Loxia curvirostra minor*.** Crossbill. Flocks were seen in the Cascade foothills west of Warm Springs and they doubtless breed extensively in the Transition zone of the eastern slopes. A nest and one egg with the parent female was taken at Sisters on July 24, 1914, by Jewett, as recorded in *The Auk*.

***Spinus pinus*.** Pine Siskin. In April and May roving flocks are often met with in the open country far from timber.

***Poocetes gramineus confinis*.** Western Vesper Sparrow. This bird is typical of the bunch-grass country and is plentiful in northern Sherman and Wasco counties. I also noted it in fewer numbers in the grazing district of Crook County.

***Passerculus sandwichensis alaudinus*.** Western Savannah Sparrow. A specimen was taken by Jewett at Haycreek on May 15, 1915.

***Astragalinus tristis pallidus*.** Pale Goldfinch. In August these birds were abundant at the mouth of the Deschutes, but in spring and early summer they were noted only at Willows and Haycreek.

***Chondestes grammacus strigatus*.** Western Lark Sparrow. This species was not noted in abundance in any part of the region worked. It was fairly common near the Columbia River in parts of Sherman and Wasco counties, and a few were observed at Haycreek and on the plains north of Warm Springs Agency.

***Zonotrichia leucophrys gambeli*.** Gambel Sparrow. Common in the brush thickets of the valleys, and frequently seen also on the sage-brush plains during early spring.

***Zonotrichia coronata*.** Golden-crowned Sparrow. On April 29, 1915, I collected a specimen from a small flock that was feeding in the underbrush of a grove along a creek near Warm Springs.

***Spizella passerina arizonae*.** Western Chipping Sparrow. One of the most widely distributed birds of this region. Common in towns, on ranches, and in the timber belts of both the Cascades and Blue Mountain foothills. Quite plentiful on the mixed sage and juniper flats, but on the sage deserts replaced by the next species.

***Spizella breweri*.** Brewer Sparrow. A typical bird of the Upper Sonoran life zone. Found abundantly on the open sage-brush and juniper flats. Their nests are built in sage or buck-brush and are composed largely of shredded sage bark, lined with fine dry grass and horse hair.

***Junco hyemalis hyemalis*.** Slate-colored Junco. Taken by Jewett at the mouth of the Deschutes on April 12, 1915 (CONDOR, XVIII, p. 21).

***Junco hyemalis shufeldti*.** Shufeldt Junco. Both *J. h. shufeldti* and *J. h. thurberi* occur in this region, but as their ranges are not yet well worked out I have included all under the former name. Juncos were noted in April and May in the thickets near the Columbia River at the mouth of the Deschutes and at Willow Creek. Plentiful in the lower Blue and Cascade mountains and in parts of the Deschutes National Forest. On May 7, a nest containing four eggs was collected on Mill Creek northwest of Warm Springs.

***Amphispiza nevadensis nevadensis*.** Sage Sparrow. Fairly common in the sage desert from the Columbia River south.

***Melospiza melodia merrilli*.** Merrill Song Sparrow. Common along streams in both the open country and in the timber.

***Melospiza lincolni lincolni*.** Lincoln Sparrow. I collected a specimen at Maupin on April 22, and another at Haycreek on May 12, 1915. Both were on shrub-bordered streams.

***Passerella iliaca* (subsp.?).** On April 30, 1915, I collected one of the northern subspecies of the Fox Sparrow in a brushy cottonwood grove at Warm Springs.

***Passerella iliaca schistacea*.** Slate-colored Sparrow. Noted as more or less common at Warm Springs and in the pine timber at Foley Creek. Early in May they were plentiful in the timber along Mill Creek on the Warm Spring Indian Reservation, fre-

quenting the thick growth of little pine seedlings, rather than the brushy creek bottoms, their usual habitat.

Pipilo maculatus montanus. Spurred Towhee. Noted in brushy valleys and canyons at Shaniko, Willows, Maupin and Warm Springs.

Passerina amoena. Lazuli Bunting. Noted in several places along streams, but most abundant along Warm Springs River, where on June 17, 1913, nests containing young were examined in the brush along the stream.

Piranga ludoviciana. Western Tanager. Occurs over the greater part of this region except in the heavy timber and on the open sage-brush desert.

Petrochelidon lunifrons lunifrons. Cliff Swallow. Locally common, nesting on the faces of cliffs and rocky bluffs.

Hirundo erythrogastra. Barn Swallow. On June 1, 1913, I found these swallows common in the vicinity of Silver Lake. They were evidently nesting under bridges and culverts.

Tachycineta thalassina lepida. Northern Violet-green Swallow. During the migration period this species was seen at Maupin. In the breeding season it was observed plentifully about the cliffs along Warm Springs River and along rock bluffs west of The Dalles.

Riparia riparia. Bank Swallow. Noted along some of the streams in the open country and doubtless nests in the banks of coulees and along creeks.

Lanius ludovicianus excubitorides. White-rumped Shrike. Common on the sagebrush and juniper flats from the Columbia River south to northern Lake County. They build their nests in the brush or trees, a typical nest being composed of grass, sage, and feathers, with a lining of sage bark and hair. The usual complement of eggs is from four to seven. I have seen this bird attacked by Brewer Sparrows, after the shrike had captured a fledgling sparrow, and do not doubt that in the breeding season at least, their food consists partly of small birds.

Vireosylva gilva swainsoni. Western Warbling Vireo. A young male was taken August 3, 1914, on the Miller Ranch at the mouth of the Deschutes.

Lanivireo solitarius cassini. Cassin Vireo. Along the streams fringed with shrubbery and deciduous trees and on the lower mountain slopes and timbered areas this species is quite common.

Vermivora rubricapilla gutturalis. Calaveras Warbler. Recorded by Jewett from the mouth of the Deschutes River (CONDOR, XVIII, p. 22).

Vermivora celata lutescens. Lutescent Warbler. Most common of the migrating warblers in spring. Usually noted in the thickets along small streams.

Dendroica aestiva brewsteri. California Yellow Warbler. A common summer resident, frequenting brush thickets along streams in the open country.

Dendroica auduboni auduboni. Audubon Warbler. Noted as common in the timber east of Haycreek, on Warm Springs Reservation and on the Deschutes National Forest. During migration it is fairly common in the open country.

Dendroica nigrescens. Black-throated Gray Warbler. Jewett noted this species at Gateway on May 30, 1915.

Dendroica townsendi. Townsend Warbler. Not common. Noted on a hillside at Gateway and in groves of willows at Haycreek. Jewett observed several in the timber at Mill Creek, and on May 5, 1915, collected a male from the top of a tall pine tree.

Oporornis tolmiei. MacGillivray Warbler. Noted at Haycreek and fairly common northeast of Warm Springs on Mill Creek. I also observed it in an opening in the timber on the north side of the Warm Springs Reservation.

Geothlypis trichas occidentalis. Western Yellowthroat. This rather shy and retiring species is common at the mouth of the Deschutes and on some of the smaller streams.

Icteria virens longicauda. Long-tailed Chat. Common along Warm Springs River and at The Dalles in June. Seen at the mouth of the Deschutes in August.

Wilsonia pusilla pileolata. Pileolated Warbler. In the middle of June a few were seen daily in the willows and other bushes along Haycreek.

Anthus rubescens. Pipit. A flock was seen by Jewett at the mouth of Willow Creek on April 2, 1915.

Cinclus mexicanus unicolor. Dipper. Common along the mountain streams of the

Cascade Mountains. One was seen by Jewett along the Deschutes at Maupin on April 25, 1915.

Oreoscoptes montanus. Sage Thrasher. Another characteristic species of the Upper Sonoran zone, found exclusively in the sage-brush areas, and generally common over its range.

Salpinctes obsoletus obsoletus. Rock Wren. An ever present bird in the canyons, rock slides and about the foot of cliffs, as well as around the rimrock outcroppings on the desert. Jewett found a nest containing young at the mouth of the Deschutes on April 14, 1915, and another containing six fresh eggs at Twickenham, in the John Day canyon, about June 20.

Catherpes mexicanus punctulatus. Dotted Canyon Wren. A specimen was taken by Jewett at the mouth of the Deschutes on July 30, 1914.

Troglodytes aedon parkmani. Western House Wren. A nest of this species was found in a hollow fence post near an old cabin on Foley Creek during May, 1915. Noted by Jewett at the mouth of the Deschutes in April.

Nannus hiemalis pacificus. Western Winter Wren. A bird was noted some miles from timber on Warm Springs River north of the Agency. Jewett caught one in a mouse trap at the Warm Springs Agency.

Telmatodytes palustris plesius. Western Marsh Wren. A common breeding bird in the tule areas of Paulina Marsh.

Certhia familiaris occidentalis. California Creeper. On May 2, 1915, at Mill Creek, I collected a Creeper that was working in a Douglas fir. No other creepers were seen, but they are probably fairly common on the Cascade slopes.

Sitta carolinensis aculeata. Slender-billed Nuthatch. Fairly common in the pine and fir forests of the lower Cascade slopes. On May 28, 1913, a nest containing five incubated eggs was found in a dead snag at the base of Lava Butte on the Deschutes Forest Reserve. The lining of this nest was of wadding taken from an old mattress that had been thrown beside the trail.

Sitta carolinensis nelsoni. Rocky Mountain Nuthatch. Noted at Foley Creek on a pine-covered spur of the Blue Mountains.

Sitta canadensis. Red-breasted Nuthatch. Taken at Mill Creek early in May. During August two or three were seen in a willow grove on the south shore of the Columbia River near the mouth of the Deschutes.

Sitta pygmaea. Pigmy Nuthatch. Noted on the Blue Mountain and Cascade slopes and the Deschutes Forest Reserve. On June 18, 1913, a nest containing young was found in the pine and fir timber near the north side of Warm Springs Reservation.

Penthestes articapillus septentrionalis. Long-tailed Chickadee. Seen in the willows at the mouth of the Deschutes and on Willow Creek; also along streams at Maupin and Warm Springs.

Penthestes gambeli gambeli. Mountain Chickadee. Common in the pine belts, and also noted in June on the juniper flats on the north side of the Paulina Mountains.

Regulus calendula calendula. Ruby-crowned Kinglet. In the spring this species was noted along the Columbia River and many of the smaller streams in the open country.

Hylocichla guttata guttata. Alaska Hermit Thrush. On April 30, 1915, this species was noted and specimens taken in a brushy cottonwood grove along a creek near Warm Springs.

Planesticus migratorius propinquus. Western Robin. Common and well distributed over a large part of this region.

Ixoreus naevius naevius. Varied Thrush. On August 6, 1914, I collected an example of this species in an orchard on the Miller Ranch at the mouth of the Deschutes River.

Sialia mexicana occidentalis. Western Bluebird. Fairly common in the open timber of the lower Cascade and Blue mountains. Nests were noted at Foley Creek in May.

Sialia currucoides. Mountain Bluebird. This species is common in the open country, nesting in junipers, banks of coulees, and around ranch buildings. Near Madras a pair was found nesting in a sheet-iron twine box on a binder. In the timber these birds are not as common as *S. m. occidentalis*.

Tillamook, Oregon, May 27, 1916.